NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

F A C T S H E E T

(pursuant to NAC 445A.236)

Permittee: Reno Masonic Temple Association
P.O. Box 2068
Reno, Nevada 89501

Permit: NV0020338 – Renewal

Location: Reno Masonic Temple
40 West First Street
Reno, Nevada 89501

Latitude: 39° 31' 31" N
Longitude: 119° 48' 47.5" W

Township 19N, Range 19E, Section 9, NW ¼ of SE ½ MDB&M

200 feet upstream of the Virginia Street Bridge

Flow: 0.0050 Million gallons per day (MGD) 7-day Average
0.0040 MGD 30-day Average

General: The Permittee has applied for a National Pollutant Discharge Elimination System (NPDES) permit to continue to discharge untreated groundwater from a basement sump at 40 West First Street directly to the Truckee River. An NPDES Permit for this discharge was first issued January 24, 1975 by the U.S. Environmental Protection Agency for the discharge of 0.0070 MGD of cooling water. Well permit number 4657 was issued March 19, 1958 for the dewatering.

Groundwater is collected in a concrete sump located in the basement of the building located between North Virginia and North Sierra Streets. The sump has a 4-inch high steel containment berm to exclude spilled fluids and is equipped with a dual pump system, a high water alarm system, and a generator for backup power. A discharge line totalizing flow meter was installed in 1999.

The total nitrogen (TN) and total phosphorous (TP) concentrations of this discharge were not monitored at the time of the 1994 Truckee River Total Maximum Daily Load (TMDL) development. TN, TP, and total dissolved solids (TDS) loadings from this facility have been included in the Truckee River Total Maximum Daily Load (TMDL) document, approved by the U.S. Environmental Protection Agency April 1994, as background sources.

Low levels of Tetrachloroethylene (PCE), Trichloroethylene (TCE), Freon 112, Methyl tert–butyl ether (MTBE), and 1,2 Dichloroethane (1,2-DCA) were detected in the groundwater underlying downtown Reno during a regional groundwater study performed by Simon Hydro-Search, Inc. in November 1991 and EMA in August 1992. Washoe County has created the Central Truckee Meadows Remediation District to address PCE and TCE contamination.

Receiving Water Characteristics: The groundwater is discharged to the Truckee River. The Truckee River at East McCarran, NAC 445A.186, standards apply for this stream segment. Waters of the Truckee River are of good quality in the segment. Beneficial uses of the Truckee River from Pyramid Lake to the state line are: irrigation; watering of livestock; recreation involving contact with the water; recreation not involving contact

with the water; industrial supply; municipal or domestic supply, or both; propagation of wildlife; and propagation of aquatic life. From Idlewild to East McCarran, the aquatic life of major concern are all life stages of mountain whitefish, rainbow trout and brown trout, NAC 445A.183.

The Bureau of Water Quality Planning database does not include complete water quality data for this reach of the River. The River meets all of the NAC 445A.186 water quality standards for beneficial uses that were monitored in 2005 and 2006. In 2005, the River met half of the NAC 445A.186 annual average requirements to maintain existing higher quality (RMHQ) that were monitored at East McCarran.

Parameter	RMHQ	2005 Average
pH (SU)	7.0 – 8.5	1 of 12 exceeded RMHQ
Chlorides (mg/L)	≤ 7.0[1]	8.2
Total Phosphates (mg/L)	≤ 0.05[1]	NM
Total Nitrogen (mg/L)	≤ 0.3[1]	NM
Total Dissolved Solids (mg/L)	≤ 90[1]	NM
Turbidity (NTU)	≤ 6.0[1]	5.3
Fecal Coliform (No./100 ml)	≤ 75[2]	NM
Total Suspended Solids (mg/L)	≤ 15.0[1]	13.8
Sulfate (mg/L)	≤ 7.0[1]	11.9
Sodium –SAR	≤ 0.5	NM

Notes:
1. Annual average
2. Annual geometric mean.

NM: Not monitored.

Quantities: From 2001 through 2005, the term of the current permit, the average TN and TP loads discharged to the Truckee River have been 0.0064 lb/day and 0.0012 lb/day, respectively. These average loads are well below the 0.020 lb/day, TN, and 0.003 lb/day, TP, effluent discharge limitations of the current permit. The load limitations were calculated at the 2001 renewal based on the maximum permitted flow and the TN, 0.43 mg/L, and TP, 0.05 mg/L, NAC 445A.186 RMHQs.

Since a significant portion of the Truckee River TDS TMDL has not yet been assigned to load allocations or wasteload allocations, the draft permit does not contain a daily TDS load limitation.

Compliance History: Based on the Division's Compliance Database, the Permittee has had three exceedances of permit limits since the first quarter of 2002; compliance prior to January 2002 is not tracked in the database. In the fourth quarter of 2003, the discharge exceeded the 120 mg/L TDS and the 1.0 mg/L total petroleum hydrocarbons (TPH) discharge limitations with concentrations of 200 mg/L and 2.7 mg/L, respectively. The TPH concentration of a second effluent sample was 0.53 mg/L; TDS was not reanalyzed. In the second quarter of 2006, the 0.0040 MGD 30-day average flow was exceeded with a quarterly average flow of 0.004025 MGD.

Proposed Effluent Limitations: Samples taken in compliance with the monitoring requirements specified below shall be taken at:

a. Basement dewatering sump, Outfall 001; and

b. Discharge line totalizing flow meter.

The discharge shall be limited and monitored by the Permittee as specified below:

Parameters	Effluent Discharge Limitations		Monitoring Requirements		
	30-Day Average	Daily Maximum	Sample Location	Measurement Frequency	Sample Type
Flow (MGD)	0.0040	0.0050[1]	b	Continuous[2]	Calculate
Total Nitrogen –N (lb/day)	0.003 lb/day		a	Annually[3]	Calculate[4]
Total Phosphorus –P (lb/day)	0.020 lb/day		a	Annually[3]	Calculate[4]
Total Dissolved Solids (mg/L)	---	120	a	Annually[3]	Discrete
TPH EPA SW-846 Method 8015, modified to detect extractable fuel hydrocarbons (mg/L)	---	1.0[5]	a	Annually[3]	Discrete
EPA Method 624, report all parameters (µg/L)	Monitor & Report		a	Annually[3]	Discrete
Tetrachloroethylene (PCE)	---	5[5]			
Trichloroethylene (TCE)		5[5]			

Notes:
1. Seven-day average.
2. Totalizing flow meter shall be read and recorded at least weekly to obtain 7-day average flow data.
3. Sample, analyze, calculate (TN and TP), and report in the fourth quarter DMR.
4. Pounds/day = Concentration (mg/L) x Flow (MGD) x 8.34 .
5. If TPH, PCE, or TCE are detected in the discharge at a concentration less than the effluent discharge limitation, the monitoring frequency shall increase to quarterly for that constituent until the constituent is not detected in the discharge for two consecutive quarters.
   If TPH, PCE, or TCE are detected in the discharge at a concentration greater than the effluent discharge limitation, the monitoring frequency shall increase to monthly for that constituent.

MGD: Million gallons per day. mg/L: Milligram per liter.
lb/day: Pounds per day. -N: As nitrogen.
-P: As phosphorus. µg/L: Micrograms per liter.
TPH: Total petroleum hydrocarbons.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance.

a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

b. Within sixty (60) days of the permit effective date, the Permittee shall submit a revised Operations and Maintenance Manual to the Division for review and approval.

Rational for Permit Requirements: Monitoring is required to assess the quality of the discharge water and to ensure that the extracted groundwater will not impact the beneficial uses of the Truckee River.

Flow: In the permit renewal application form, the Permittee requested the same 30-day average, 0.0040 MGD, and daily maximum, 0.0050 MGD, flows as in the current permit. The Permittee estimated that the design capacity of the dewatering system is 0.0144 MGD, daily maximum. The discharge has averaged 0.0019 MGD over the term of the current permit.

Since the totalizing flow meter shall be read on a weekly basis, the 0.0050 MGD daily maximum has been changed to a weekly average discharge limitation in the draft permit. The 30-day average flow limitation of the current permit has been retained.

Total Nitrogen as Nitrogen and Total Phosphorus as Phosphorus: The total nitrogen and total phosphorus

load limitations are explained in the Quantities section of this fact sheet. The proposed loads are unchanged from the current permit.

The current permit does not limit the concentration of these constituents and concentration limits are not proposed in the draft permit.

Total Dissolved Solids: The lack of a total dissolved solids (TDS) load limitation in the draft permit is explained in the Quantities section of this fact sheet. The TDS load is not limited in the current permit.

The NAC 445A.186 standards of water quality include TDS RMHQs of 90.0 mg/L, annual average, and 120.0 mg/L, single value, and a beneficial use standard of 500 mg/L, annual average.

From 2001 through 2005, the average discharge TDS concentration has been 112 mg/L. The TDS effluent discharge limitation of the previous permit, 120 mg/L daily maximum, is proposed to be retained in the draft permit.

Total Petroleum Hydrocarbons: Quarterly analysis for total petroleum hydrocarbons (TPH), EPA SW-846 Method 8015, modified to detect extractable fuel hydrocarbons, was added to the permit September 1, 1998 with a 30-day average discharge limitation of 1 mg/L , in response to a recommendation from a site inspection. Due to a lack of detectable TPH concentrations, the monitoring frequency was reduced to annually in the 2001 permit renewal.

Due to historic leakage from underground storage tanks in downtown Reno, the TPH monitoring frequency has been conditionally retained as annually in the draft permit. If TPH is detected in the discharge at a concentration less than the effluent discharge limitation, the monitoring frequency shall increase to quarterly until the TPH is not detected in the discharge for two consecutive quarters. If TPH is detected in the discharge at a concentration greater than the effluent discharge limitation, the monitoring frequency shall increase to monthly.

EPA Method 624: Although not detected in the discharge, annual analysis for volatile organic compounds (VOCs) using EPA Method 624 is proposed to be conditionally continued in the draft permit.

Limitations on the Tetrachloroethylene (PCE) and Trichloroethylene (TCE) concentrations in the discharge were added to the permit during the 2001 renewal because these compounds have been detected in the dewatering discharge of other properties within the Remediation District. If PCE or TCE is detected in the discharge at a concentration less than the effluent discharge limitation, the monitoring frequency shall increase to quarterly until that constituent is not detected in the discharge for two consecutive quarters. If PCE or TCE is detected in the discharge at a concentration greater than the effluent discharge limitation, the monitoring frequency for VOCs shall increase to monthly.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a five (5) year period.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit authorizing the Permittee to continue to discharge untreated groundwater to the Truckee River subject to the conditions contained within the permit, is being sent to the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 PM February 1, 2007, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the

person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.238.

Prepared by: Bruce Holmgren
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